

ABSTRACT OF THE DISCLOSURE

A main surface of a base substrate of sapphire is selectively formed an irregular region on the main surface. Then, a semiconductor layer of gallium nitride is grown to fill recessed portions in the irregular region of the base substrate and make the upper surface even. Then, a laser beam is irradiated upon the interface between the semiconductor layer and the irregular region of the base substrate to separate the semiconductor layer from the base substrate. As a result, a nitride semiconductor substrate is produced from the semiconductor layer.